

# Drought Information Statement for the Mid-South

Valid 10/5/2023

Issued By: NWS Memphis, TN

Contact Information: [sr-meg.wx@noaa.gov](mailto:sr-meg.wx@noaa.gov)

- This product will be updated October 19, 2023, or sooner if drought conditions change significantly.
- Please see all currently available products at <https://drought.gov/drought-information-statements>.
- Please visit <https://www.weather.gov/meg/DroughtInformationStatement> for previous statements.



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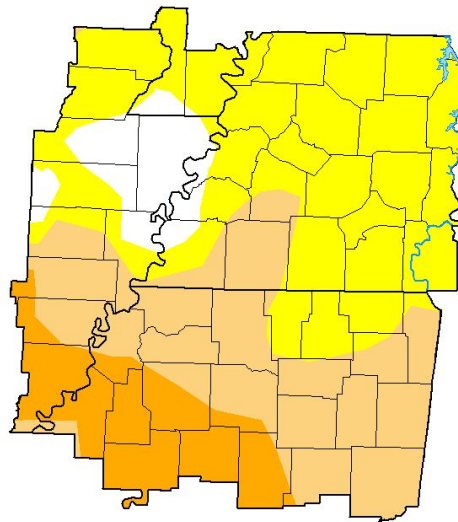


# U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for the Mid-South

- DROUGHT CONDITIONS WORSEN
- Drought intensity and extent
  - D2 (Severe Drought): Expanded to include more of east-central AR and northwest MS
  - D1 (Moderate Drought): Expanded to include nearly all of the remainder of north MS, east-central AR, and a small portion of West TN
  - D0 (Abnormally Dry): Includes most of the remaining Mid-South counties

## U.S. Drought Monitor Memphis, TN WFO



**October 3, 2023**  
(Released Thursday, Oct. 5, 2023)  
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

|   | None  | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4   |
|---|-------|-------|-------|-------|-------|------|
| Current                                 | 8.44  | 91.56 | 46.09 | 14.08 | 0.00  | 0.00 |
| Last Week<br>09-26-2023                 | 37.78 | 62.22 | 21.24 | 5.76  | 0.00  | 0.00 |
| 3 Months Ago<br>07-04-2023              | 33.91 | 66.09 | 19.96 | 0.00  | 0.00  | 0.00 |
| Start of<br>Calendar Year<br>01-01-2023 | 60.52 | 39.48 | 0.00  | 0.00  | 0.00  | 0.00 |
| Start of<br>Water Year<br>09-26-2023    | 37.78 | 62.22 | 21.24 | 5.76  | 0.00  | 0.00 |
| One Year Ago<br>10-04-2022              | 7.33  | 92.67 | 35.43 | 4.17  | 0.00  | 0.00 |

### Intensity

|                     |                        |
|---------------------|------------------------|
| None                | D2 Severe Drought      |
| D0 Abnormally Dry   | D3 Extreme Drought     |
| D1 Moderate Drought | D4 Exceptional Drought |

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

### Author

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CPC/NOAA



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

Image Caption: U.S. Drought Monitor valid 8 a.m. EDT October 5, 2023



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# Recent Change in Drought Intensity

Link to the latest [4-week change map](#) for the Mid-South

- Four-Week Drought Monitor Class Change
  - Drought worsened: Most of the Mid-South
  - No change: A swath from Lee County, AR, to Panola County, MS
  - Drought improved: A very small area in Tunica County, MS

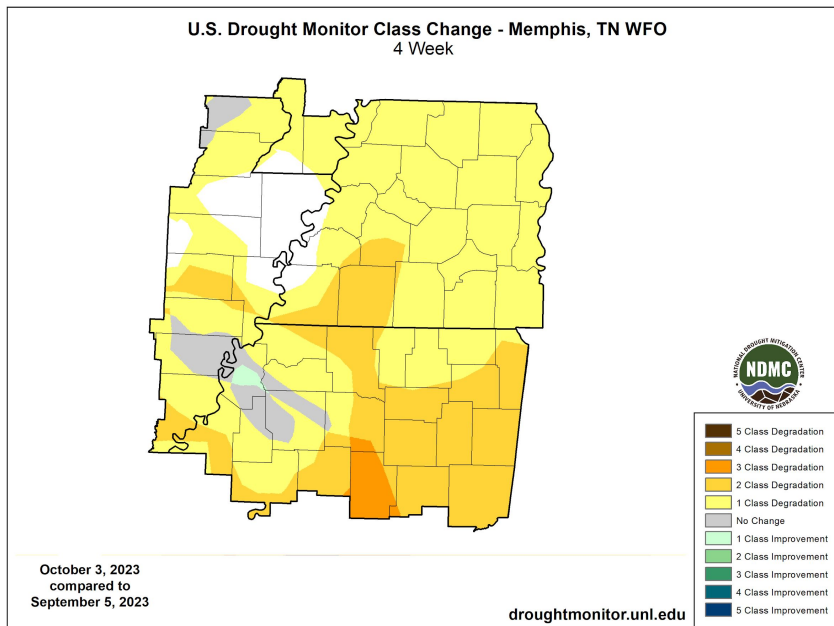


Image Caption: U.S. Drought Monitor 4-week change map valid 8 a.m. EDT October 5, 2023



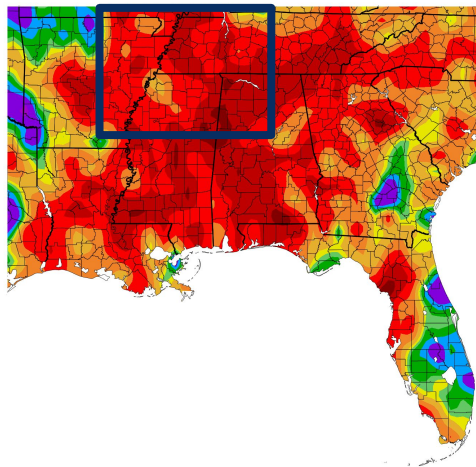


# Precipitation

Over the past 30 days from the [High Plains Regional Climate Center](#)

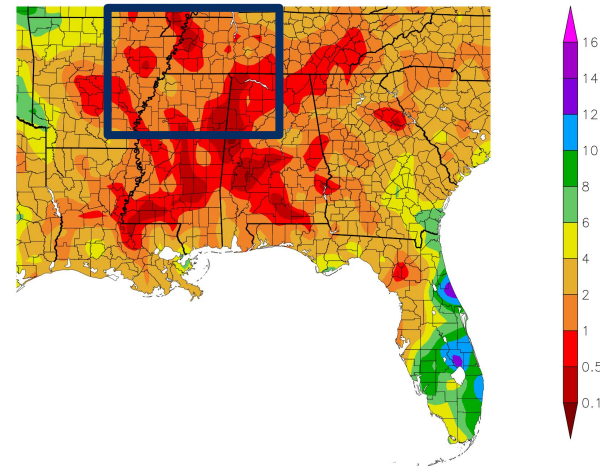
- Precipitation totals were generally less than 2" across the Mid-South over the past 30 days, with some areas below 0.50".
- The entire Mid-South experienced **below** normal precipitation over the last 30 days. Portions of West TN and northeast MS received less than 25% of normal precipitation.

Percent of Normal Precipitation (%)  
9/5/2023 – 10/4/2023



Generated 10/5/2023 at HPRCC using provisional data.

Precipitation (in)  
9/5/2023 – 10/4/2023



NOAA Regional Climate Centers 023 at HPRCC using provisional data.

NOAA Regional Climate Center

Image Captions:

Left - [Percent of Normal Precipitation for NWS-Southern Region East](#)

Right - [Precipitation for NWS- Southern Region East](#)

Data Courtesy High Plains Regional Climate Center.

Data over the past 30 days ending October, 4, 2023



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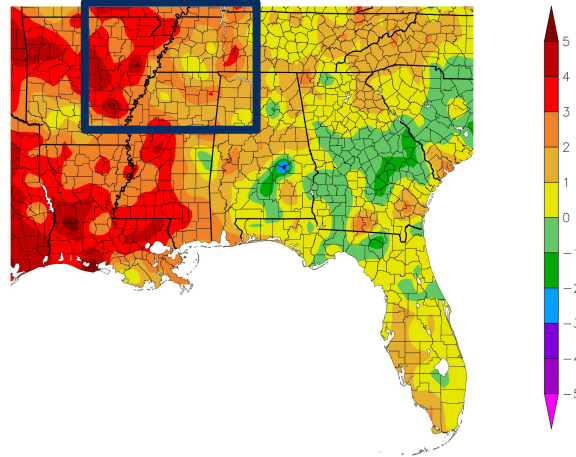


# Temperature

Data over the past 30 days from the [High Plains Regional Climate Center](#)

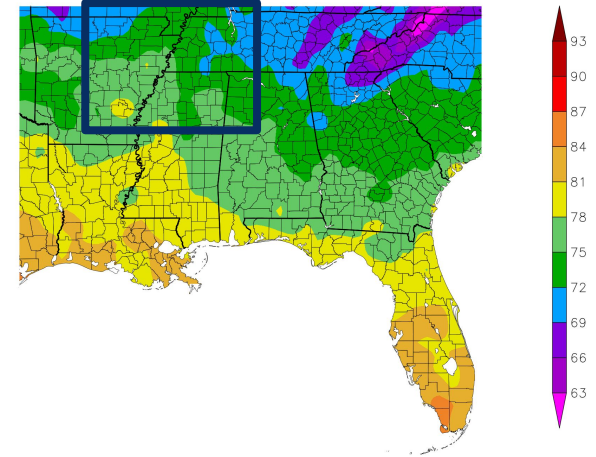
- Average temperatures have ranged from near 70 degrees to the upper 70s across the region over the last 30 days.
- Average temperatures ranged from 1 to 4 degrees Fahrenheit **above** normal during this period.

Departure from Normal Temperature (F)  
9/5/2023 – 10/4/2023



Generated 10/5/2023 at HPRCC using provisional data.

Temperature (F)  
9/5/2023 – 10/4/2023



NOAA Regional Climate Centers 23 at HPRCC using provisional data.

NOAA Regional Climate Centers

Image Captions:

Left - [Departure from Normal Temperature](#)

Right - [Average Temperature](#)

Data Courtesy High Plains Regional Climate Center.  
Data over the past 30 days ending October 4, 2023





# Summary of Impacts

Links: See/submit [Condition Monitoring Observer Reports \(CMOR\)](#) and view the [Drought Impacts Reporter](#)

## Hydrologic Impacts

- Main takeaway: The Mississippi River at Memphis is already near historic low-water threshold values. The extended river forecast keeps the river very low over the next month which will continue to impact barge and river traffic.

## Agricultural Impacts

- Some crop yield has been negatively affected in a few areas across northwest MS.

## Fire Hazard Impacts

- Above normal wildland fire activity has been observed this month across northeast Arkansas and north Mississippi.

## Other Impacts

- There are no known impacts at this time.

## Mitigation Actions

- Please refer to your municipality and/or water provider for mitigation information.





# Hydrologic Conditions and Impacts

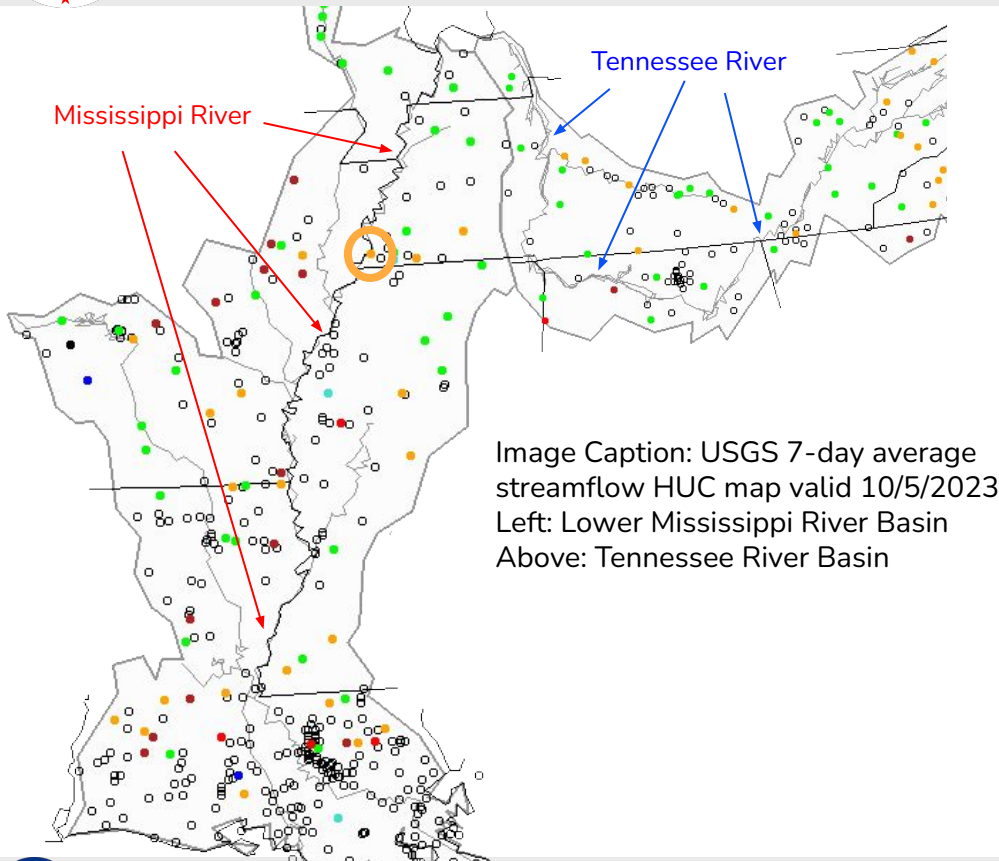


Image Caption: USGS 7-day average streamflow HUC map valid 10/5/2023  
Left: Lower Mississippi River Basin  
Above: Tennessee River Basin

- The **Mississippi River at Memphis** is already well below low water threshold values. The extended river forecast keeps the river very low with no significant rain events forecasted upstream.
- The Tennessee River feeds into the Mississippi River, and is also experiencing near to below normal water levels.

| Explanation - Percentile classes |                   |              |        |              |                   |      |
|----------------------------------|-------------------|--------------|--------|--------------|-------------------|------|
|                                  |                   |              |        |              |                   |      |
| Low                              | <10               | 10-24        | 25-75  | 76-90        | >90               | High |
|                                  | Much below normal | Below normal | Normal | Above normal | Much above normal |      |





# Agricultural Impacts

- Soil moisture is roughly 30% of normal (or lower) across much of northwest MS and eastern AR
- Crop moisture is abnormally to excessively dry across much of the area
- Crop yield has been negatively affected in a few areas in northwest MS
- Pastures in northwest MS are producing less feed for cattle than normal

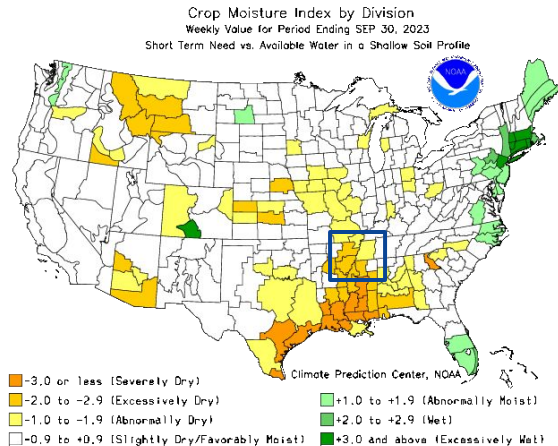
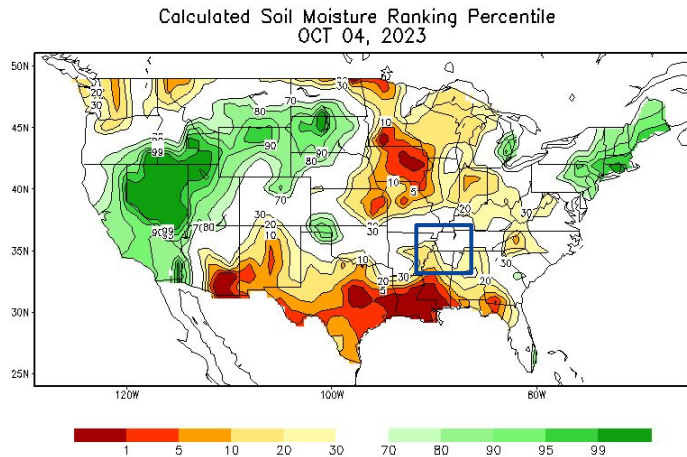


Image Captions:

Left: CPC Calculated [Soil Moisture Ranking Percentile](#) valid October 4, 2023

Right: [Crop Moisture Index by Division](#). Weekly value for period ending October 4, 2023







# Fire Hazard Impacts

Link to [Wildfire Potential Outlooks from the National Interagency Coordination Center](#).

- Above normal significant wildland fire potential for the Mid-South through October. Normal conditions are currently anticipated in November.
- Burn Bans currently in effect for:
  - Arkansas: Lee County
  - Missouri: None.
  - Mississippi: Calhoun, Chickasaw, Lee, Monroe, Panola, and Pontotoc Counties
  - Tennessee: None.

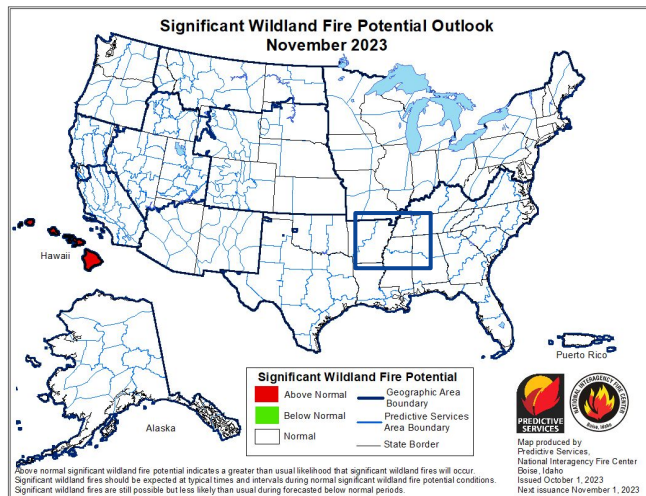
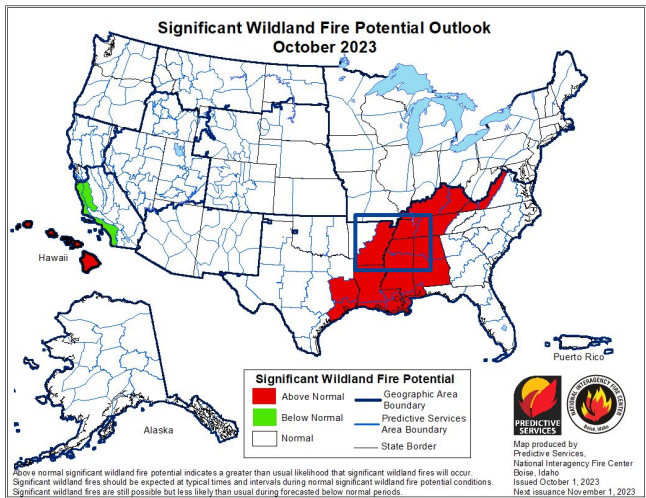


Image Caption: [Significant Wildland Fire Potential Monthly Outlook](#) for August 2023



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# Seven Day Precipitation Forecast

- Widespread appreciable rainfall is not expected across the Mid-South over the next 7 days.
- Forecast precipitation amounts (QPF) are expected to be near 0.50" or less.
- Most of this rain will occur through tonight with generally dry weather Friday (10/6) through the middle of next week.

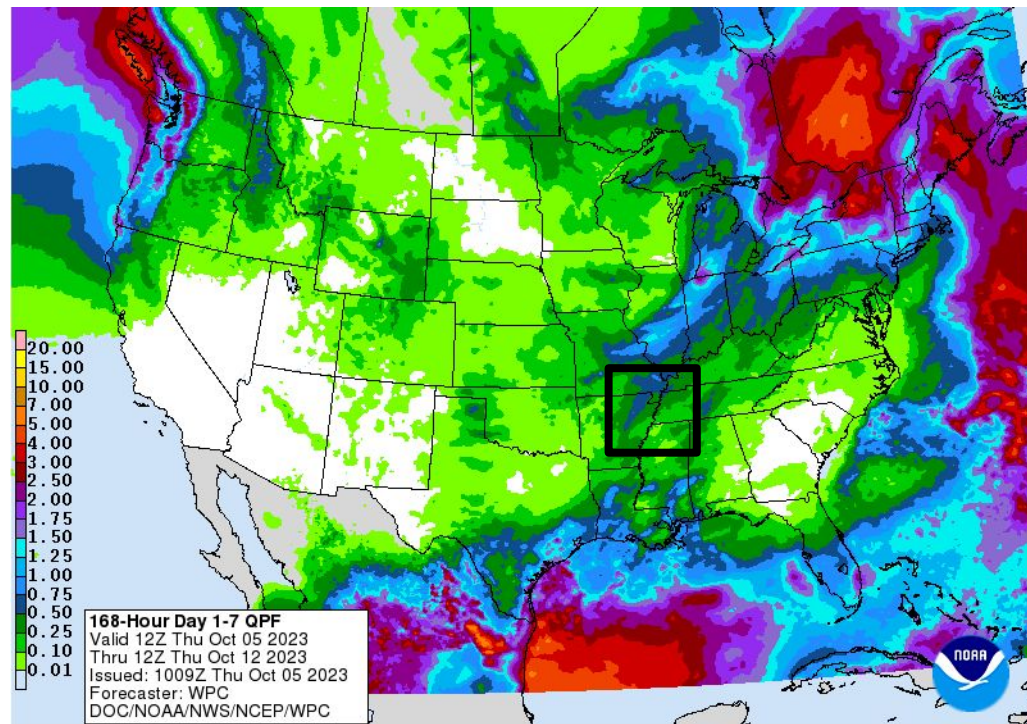


Image Caption: Weather Prediction Center [7-day precipitation forecast](#) valid Thursday, October 5, until Thursday, October 12.





# Rapid Onset Drought Outlook

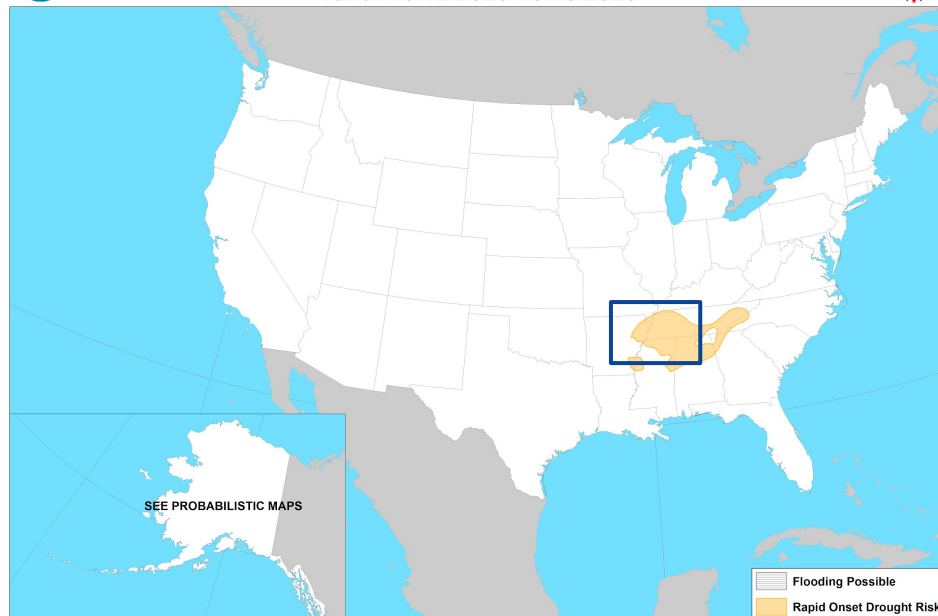
Links to the latest Climate Prediction Center 8 to 14 day [Temperature Outlook](#) and [Precipitation Outlook](#).

- There is a potential for rapid onset drought across West TN and northeast MS.



Day 8-14 U.S. Hazards Outlook

Valid: 10/12/2023-10/18/2023



Climate Prediction Center

Made: 10/04/2023 3PM EDT

Follow us:  

[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

Image Caption:

[Days 8 to 14 U.S. Hazards Outlook](#) Valid Month DD to DD.



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# Long-Range Outlooks

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- There is roughly a 40% chance for above normal temperatures across the Mid-South during the month of October.
- There is a 40-50% chance that October precipitation will be below normal.
- In summary, October is trending warmer and drier than normal.

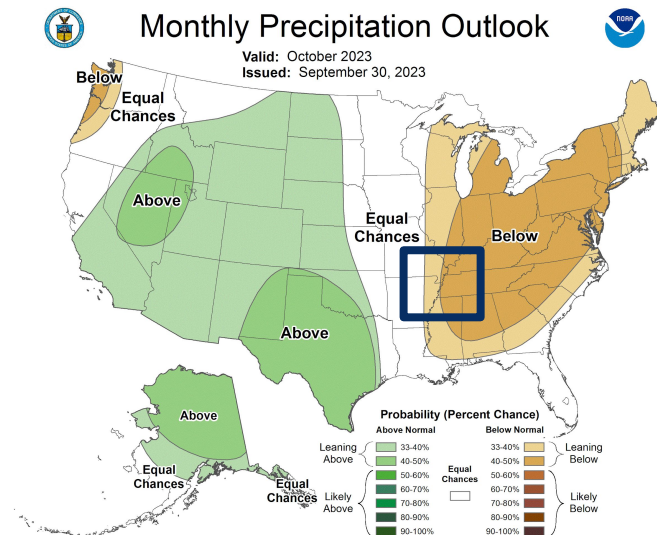
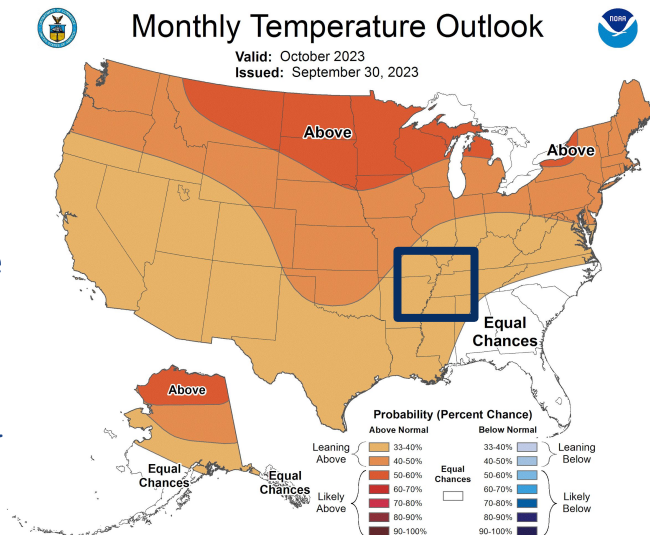


Image Captions:

Left - [Climate Prediction Center Monthly Temperature Outlook](#)

Right - [Climate Prediction Center Monthly Precipitation Outlook](#)

Valid October 2023



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# Drought Outlook

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- Drought conditions are expected to persist or develop across much of the Mid-South during the month of October.
- Little improvement is anticipated during this time.

## U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for October 2023  
Released September 30, 2023

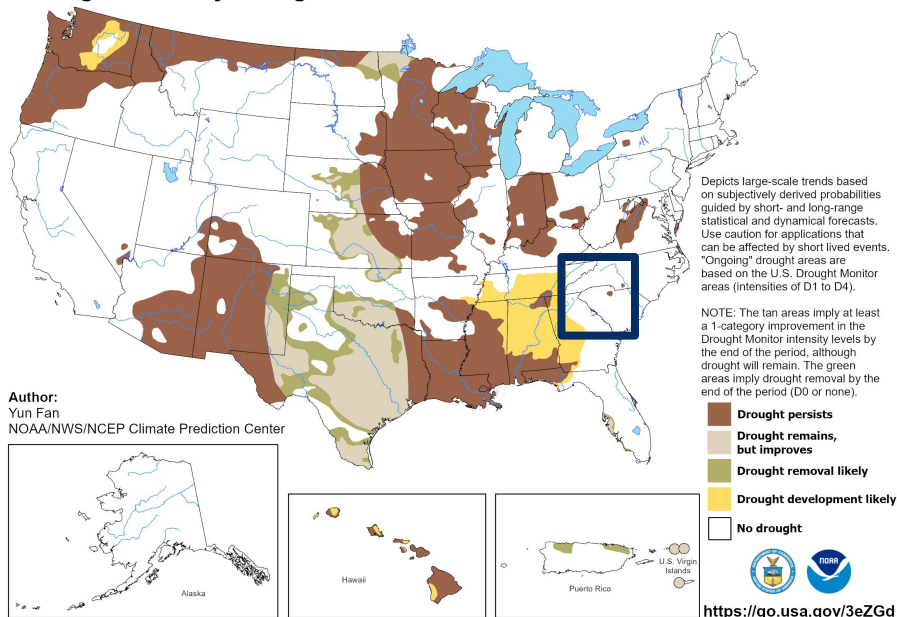


Image Caption:

Climate Prediction Center Monthly Drought Outlook Released  
09/30/2023 valid for 10/2023

Links to the latest:

[Climate Prediction Center Monthly Drought Outlook](#)  
[Climate Prediction Center Seasonal Drought Outlook](#)



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